Company CARRIZO OIL & GAS
Well SPEAKER 2-27-31-8-61
Field WILDCAT
County WELD State CO

HALLIBURTON

CEMENT BOND LOG

Company CARRIZO OIL & GAS
Well SPEAKER 2-27-31-8-61
Field WILDCAT
County WELD State CO

API No.: 05-123-34098-0100 Serv #: 900650935
Location: LAT: 40.639230 LONG: -104.188060
SHL: 307' FNL & 1560' FEL
BHL: 650' FSL & 2160' FEL

Sec: 27 Twp: 8N Rge: 61W

Other Services
N/A

Permanent Datum	GL	Elevation	4992'
Log Measured From	KB , 15	Ft. above perm. datum	
Drilling Measured From	KB		

Elevation
K.B. 5007'
D.F. 5006'
G.L. 4992'

Date @ Time Logged	8-AUG-13	Type Fluid in Hole	FRESH WATER
Run No.	ONE	Density of Fluid	8.33
Depth - Driller	10665'	Fluid Level	SURFACE
Depth - Logger	6530'	Cement Top Est. Logged	788'
Bottom - Logged Interval	6518'	Equipment / Location	11014931 / BRIGHTON
Top - Log Interval	SURFACE	Recorded by	T. SCHROCK
Max. Recorded Temp.	N/A	Witnessed by	K. WILLIAMS

CEMENTING DATA	Surface String	Protection String	Production String	Liner
Date / Time Cemented	N/A	N/A	N/A	N/A
Primary / Squeeze				
Expected Compressive Strength	psi@ hrs	psi@ hrs	psi@ hrs	psi@ hrs
Cement Volume				
Cement Type / Weight	/	/	/	/
Formulation				
Mud Type / Mud Wgt.	/	/	/	/

Borehole Record				Casing & Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
ONE	12.25"	0	1400'	9.625"	36	0	1400'
ONE	8.75"	0	7044'	7"	23	0	6666'
ONE	6.125"	5881	10665'	4.5"	11.6	5881'	10665'

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HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

Comments

PRIMARY DEPTH REFERENCE

ESTIMATED TOP OF CEMENT @ 788'

TOP OF LINER @ 5881'

BLANKET VALUE: 241 GAPI

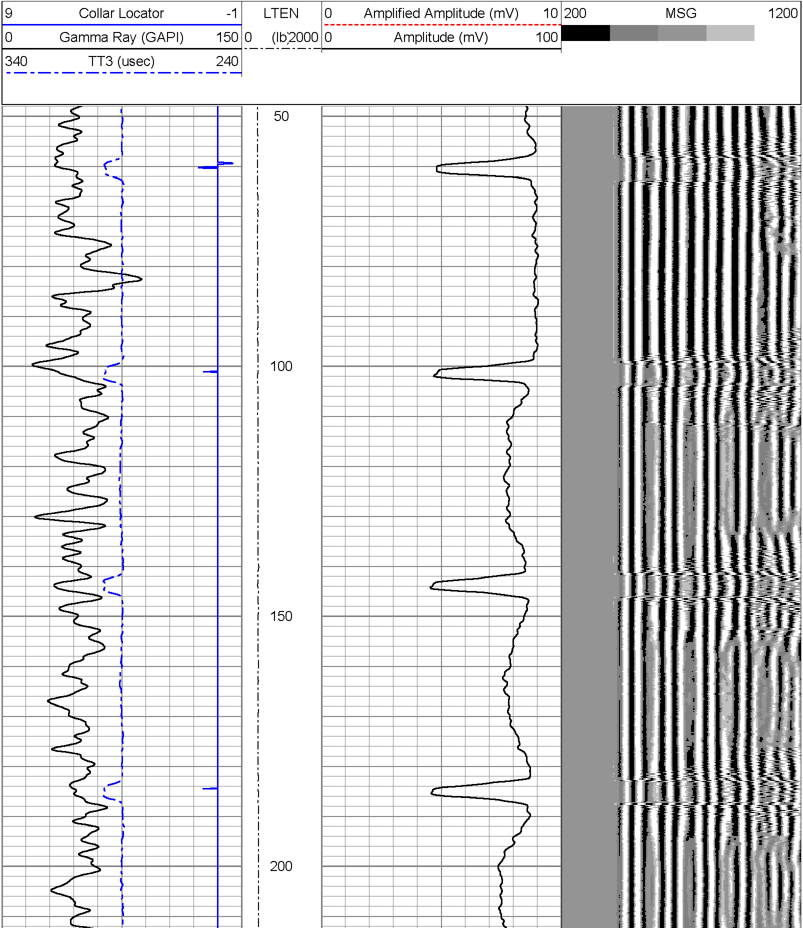
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES
CREW TODAY B. RIEDEL, M. BURNETT, AND G. SELLERS

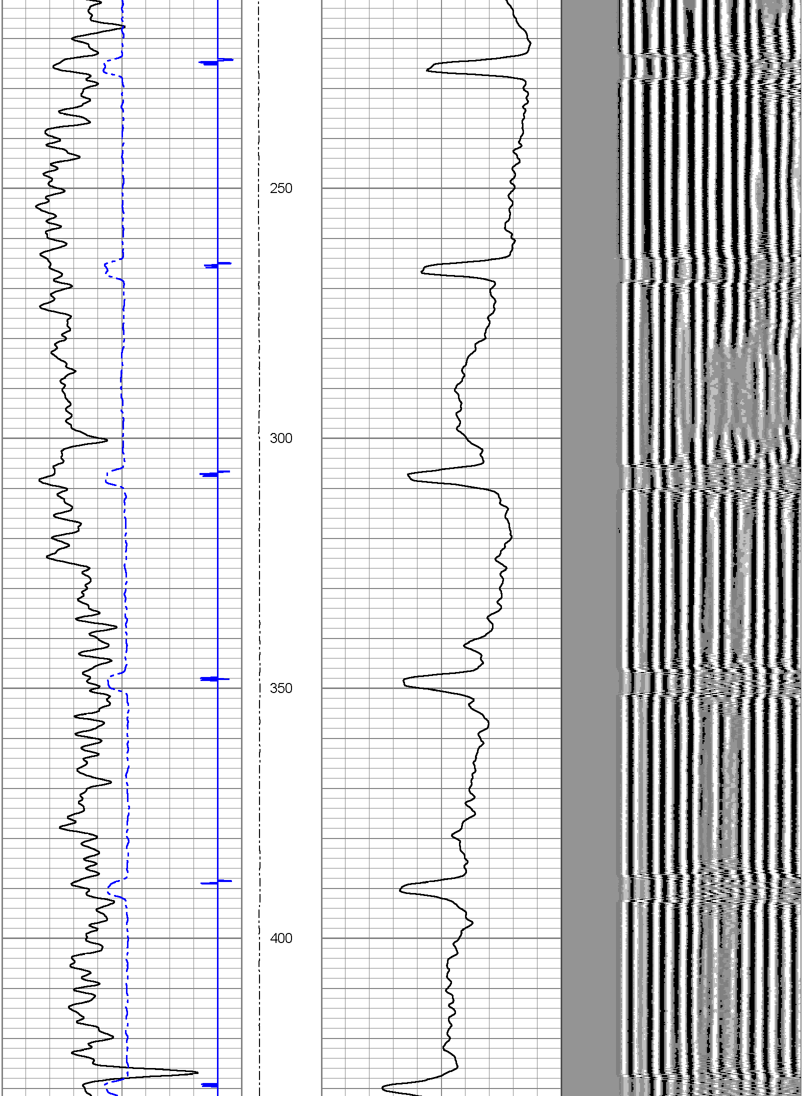
HALLIBURTON

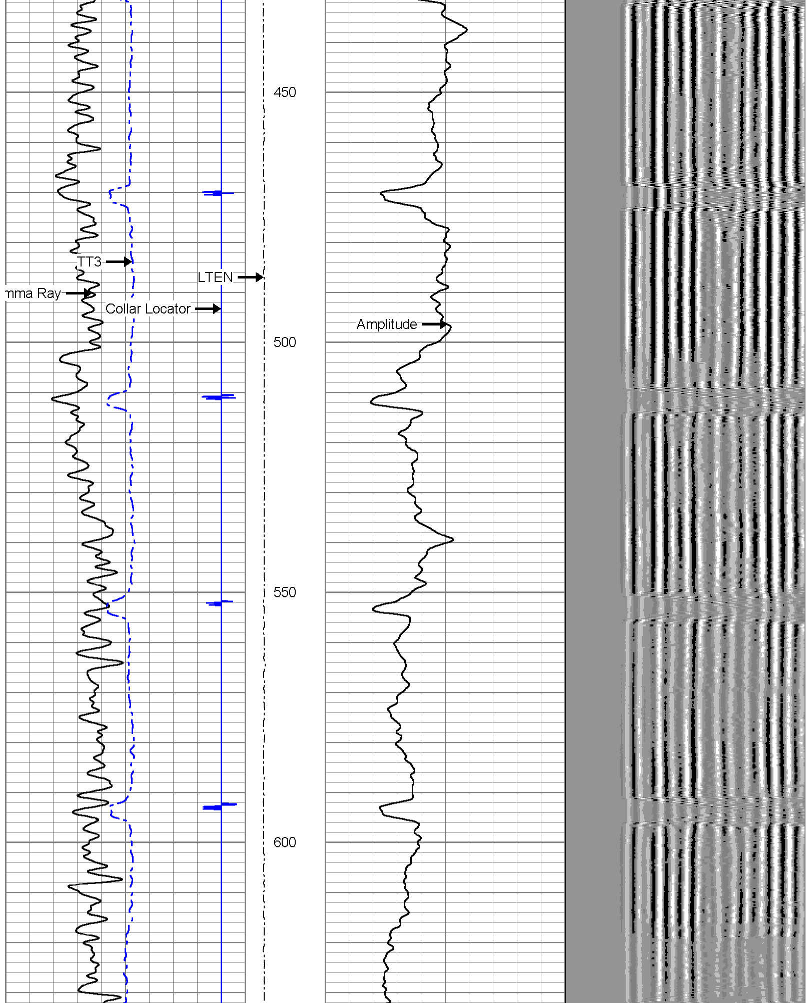
MAIN PASS (1000 PSI)

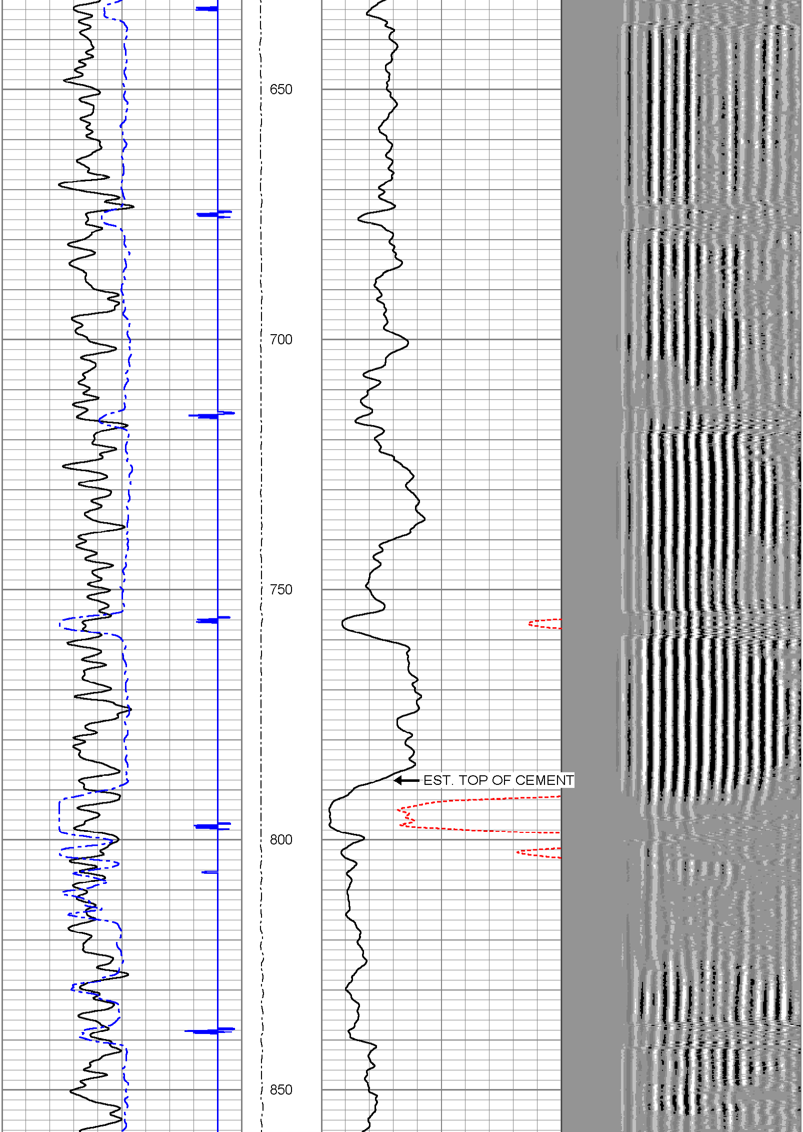
SCALE: 5"=100'

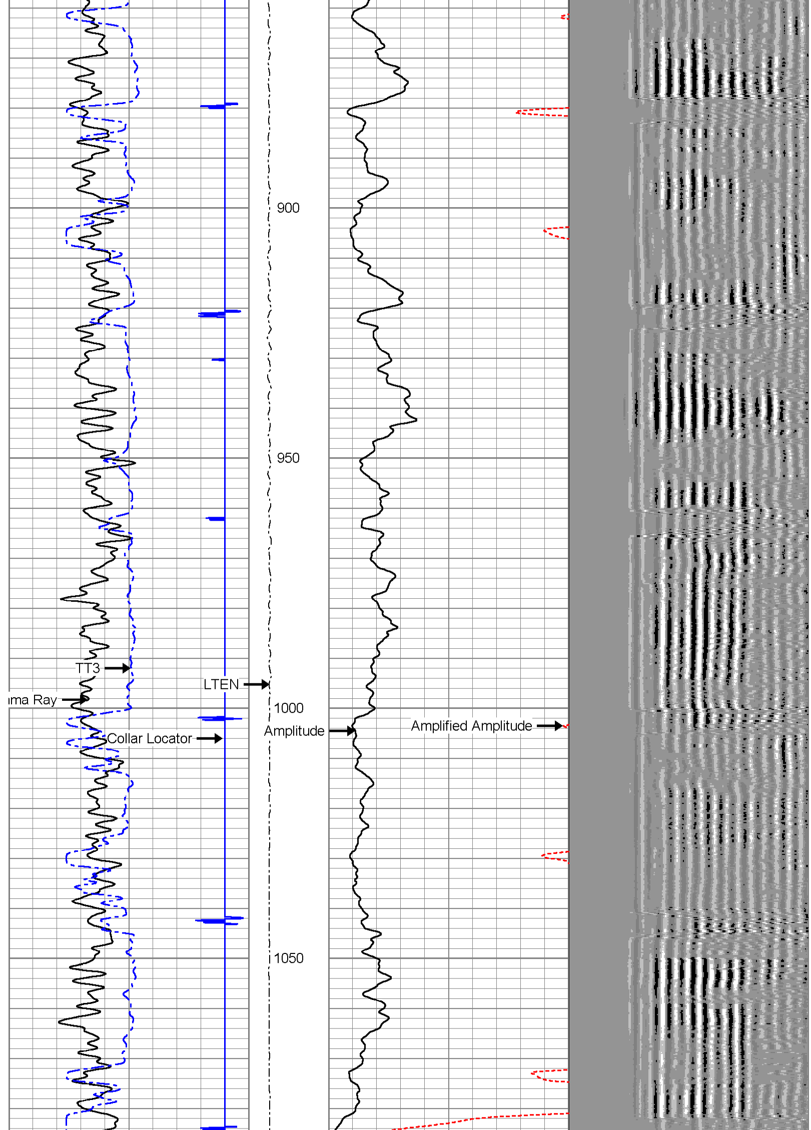
Database File:	carrizo_speaker_2-27-31-8-61.db
Dataset Pathname:	cbl/pass15
Presentation Format:	1katcbl
Dataset Creation:	Thu Aug 08 10:01:11 2013 by Log Halliburton Casedho
Charted by:	Depth in Feet scaled 1:240

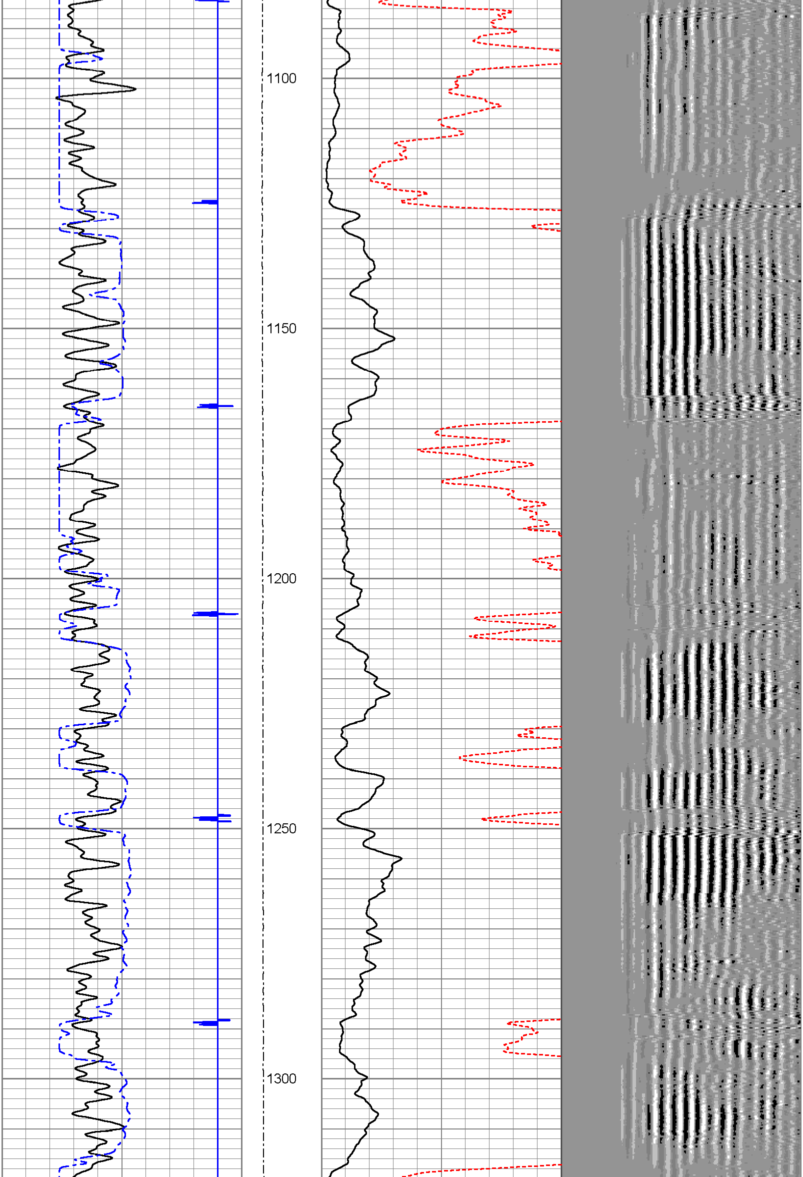


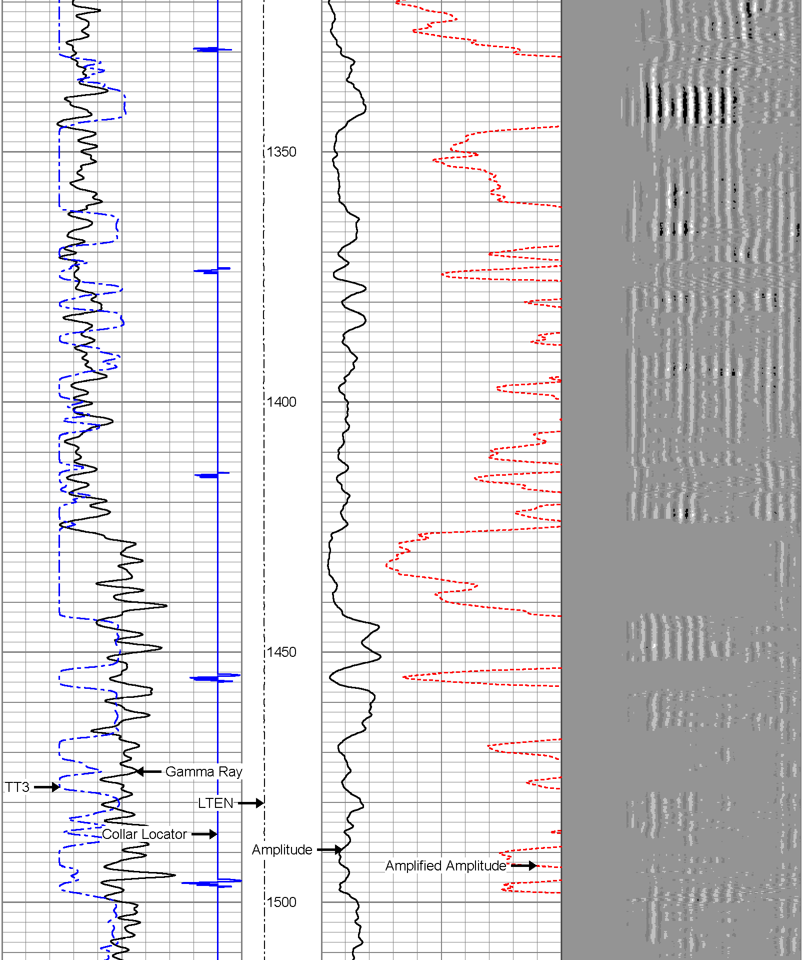


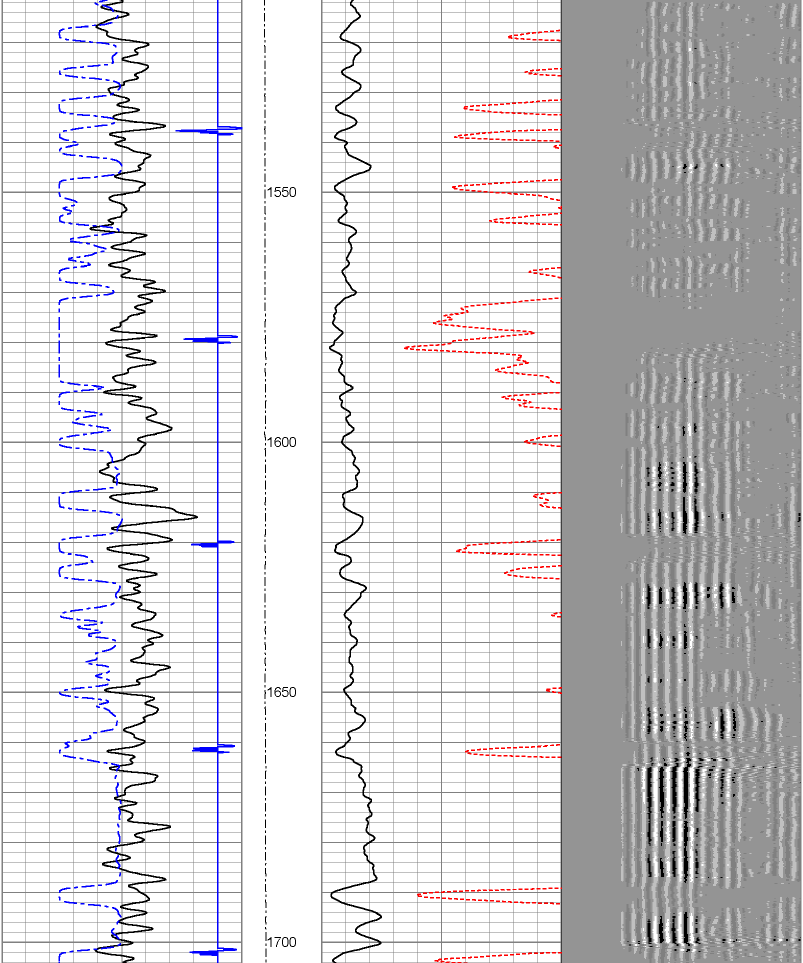


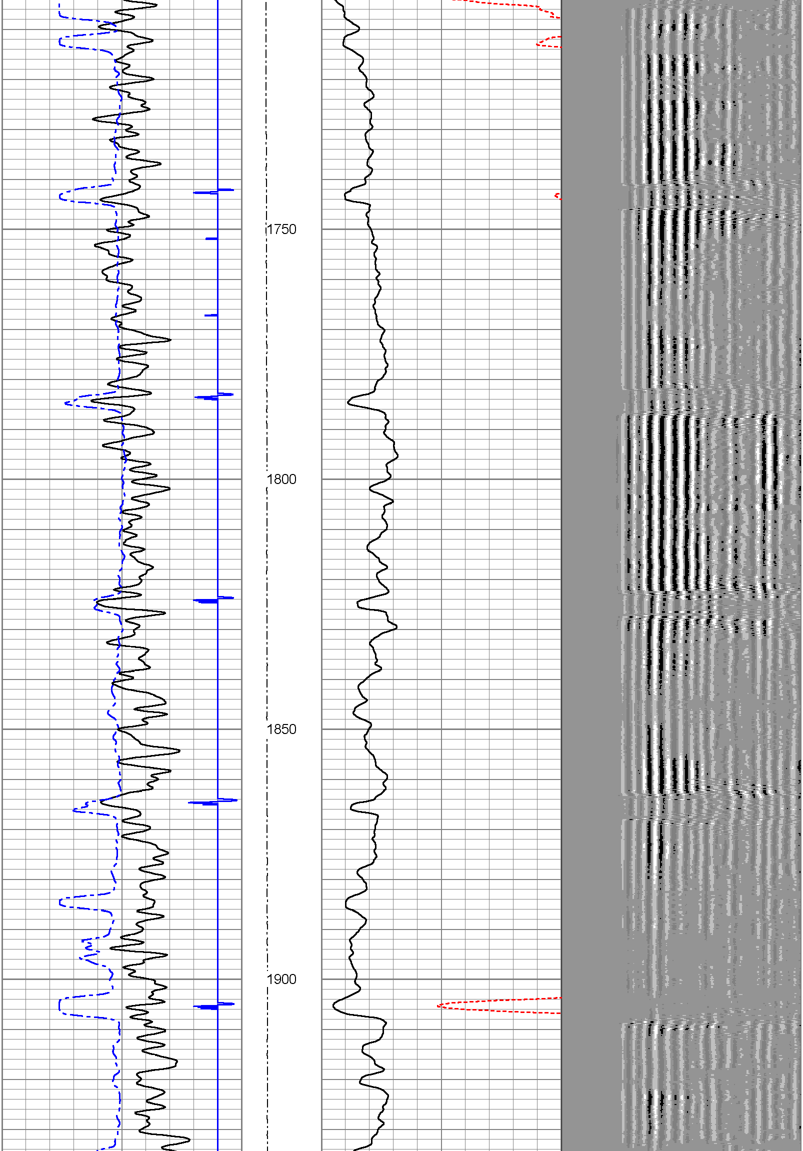


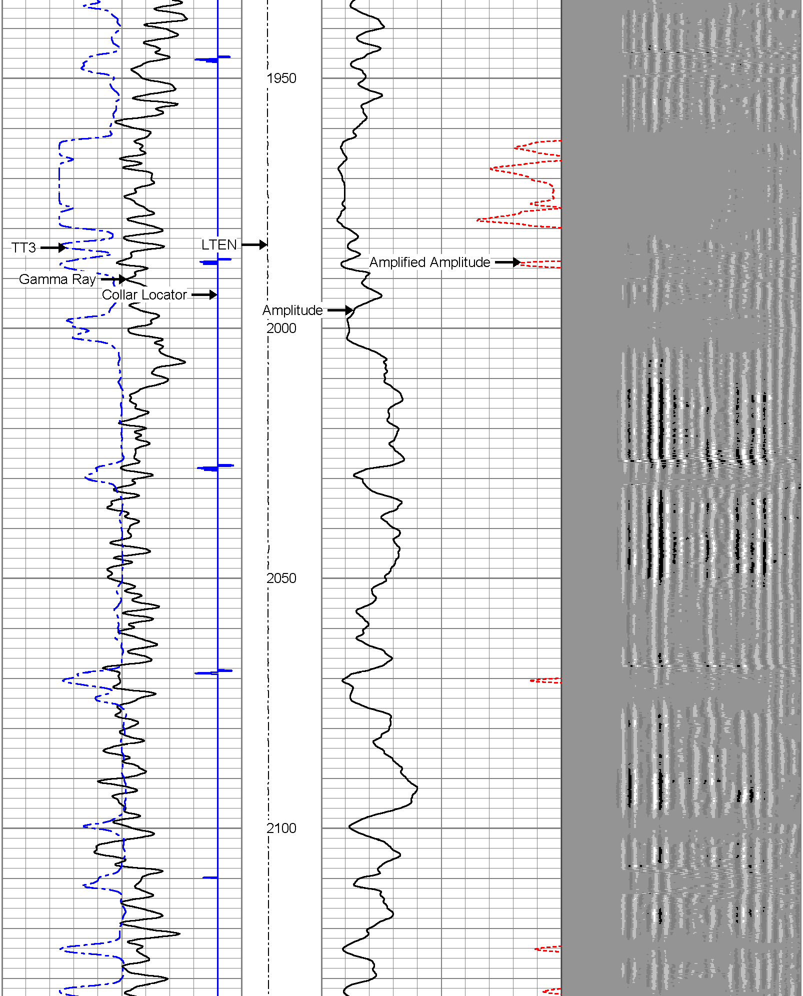


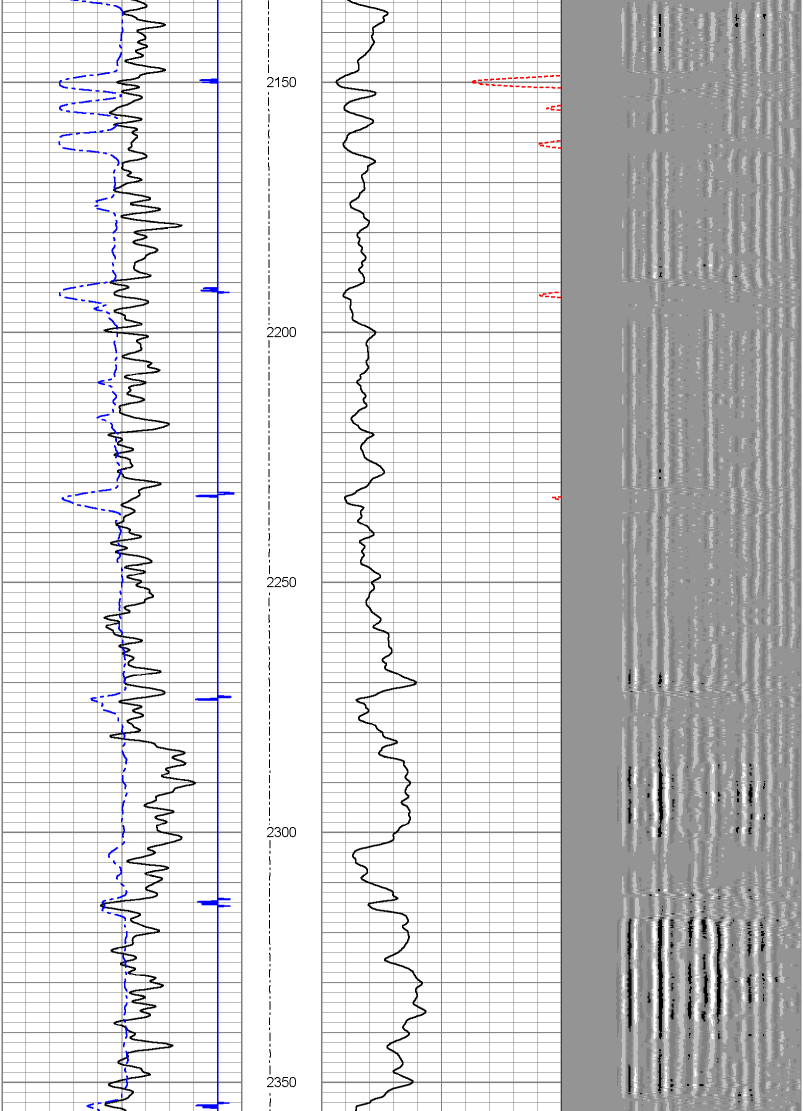


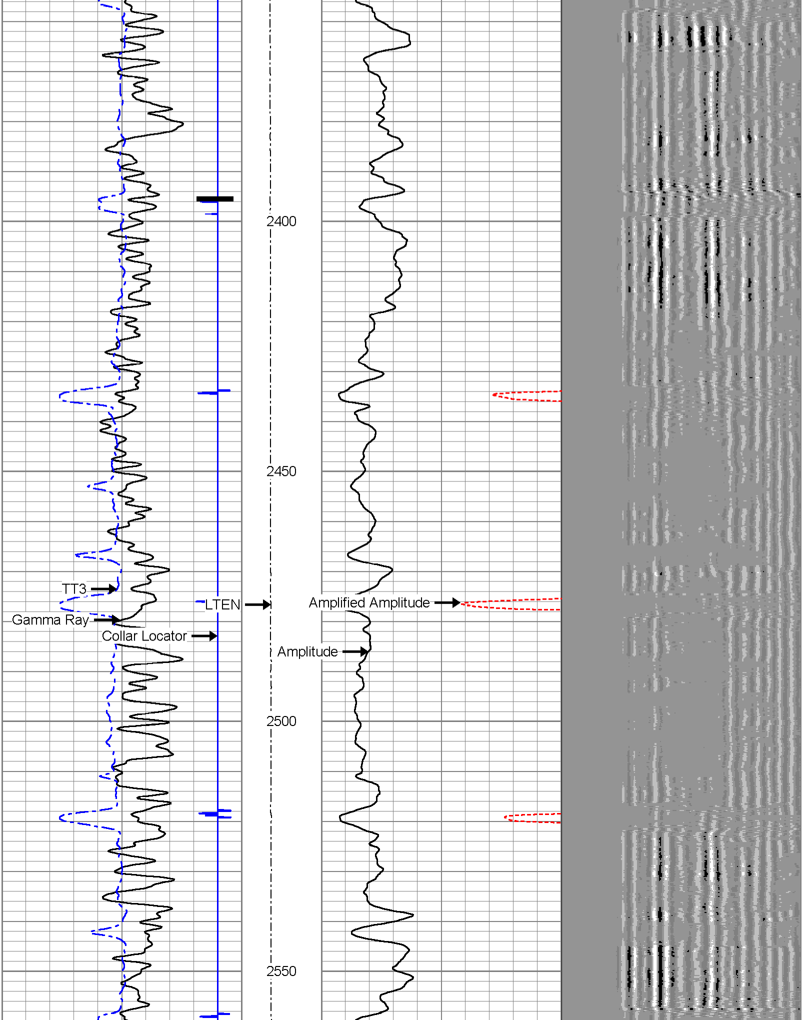


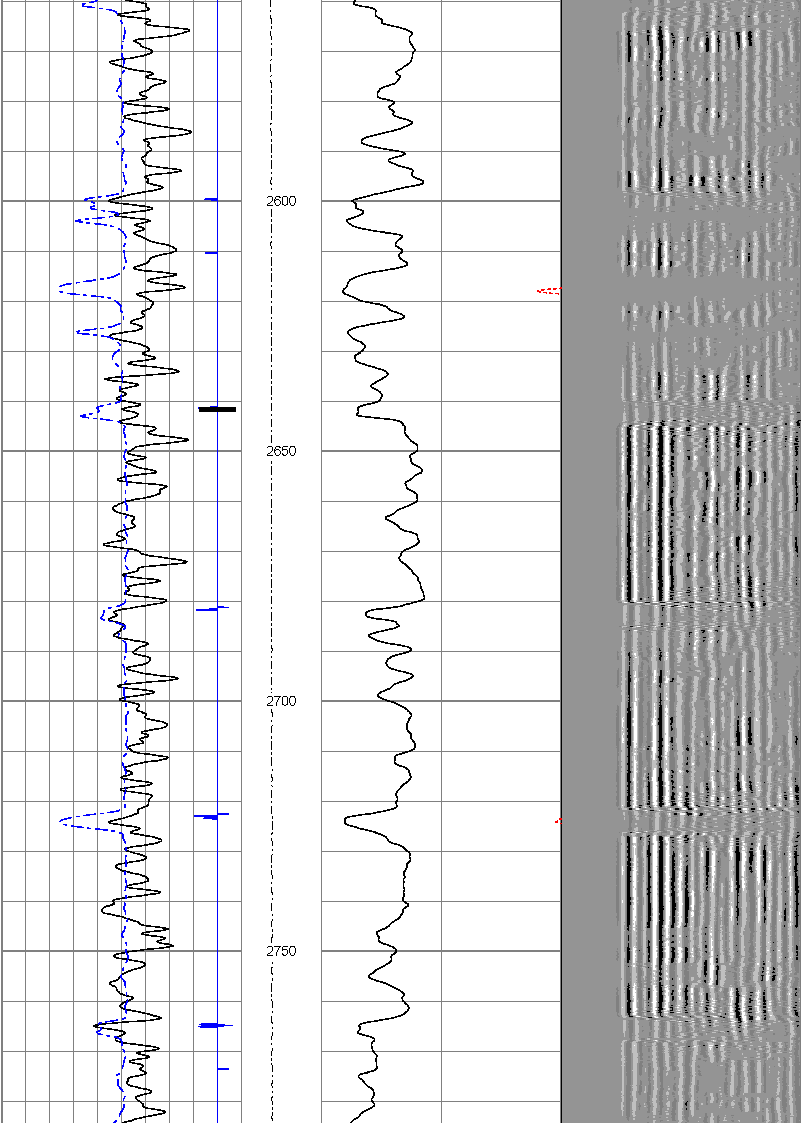


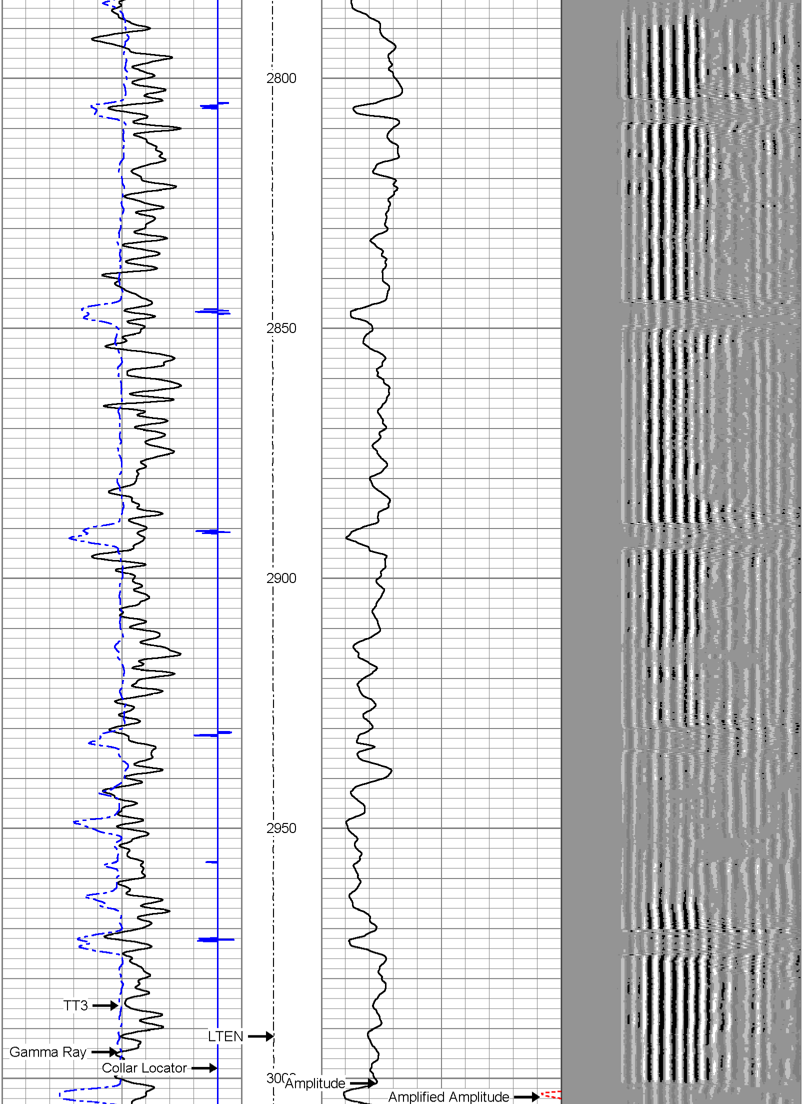


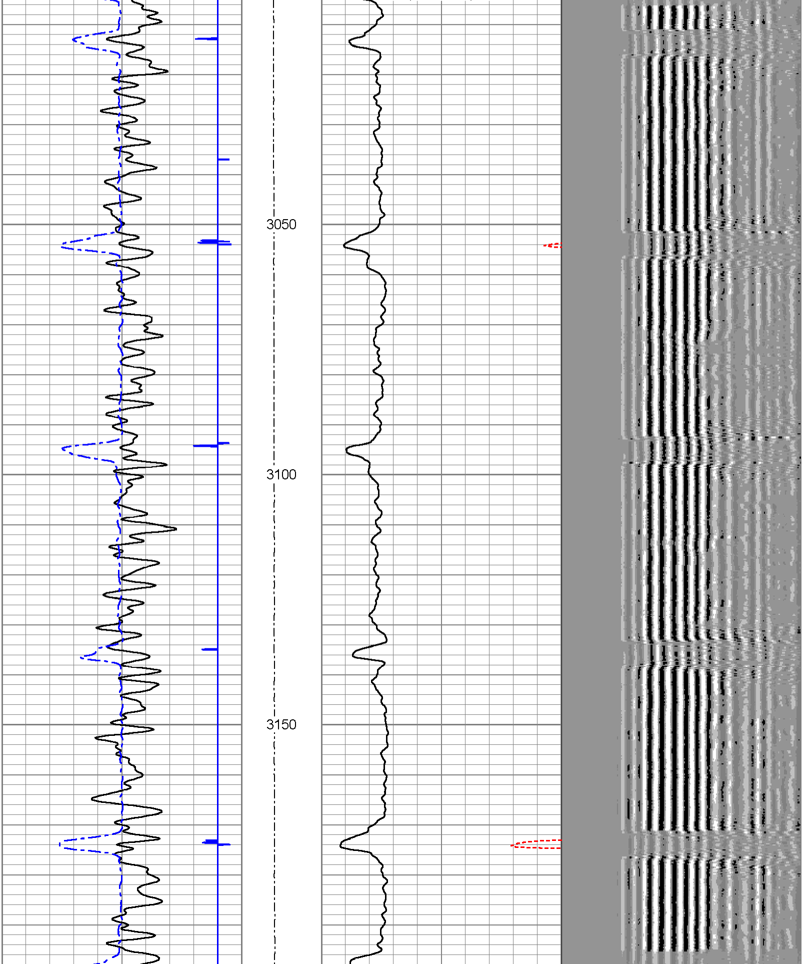


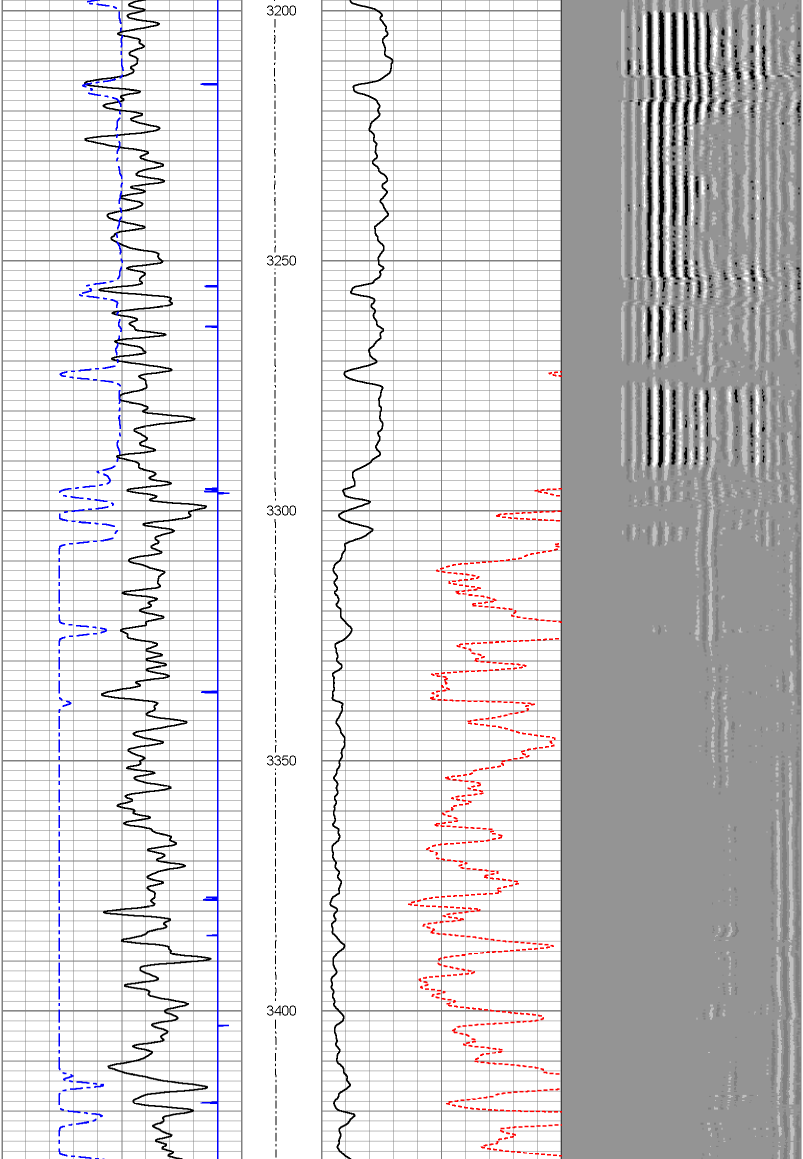


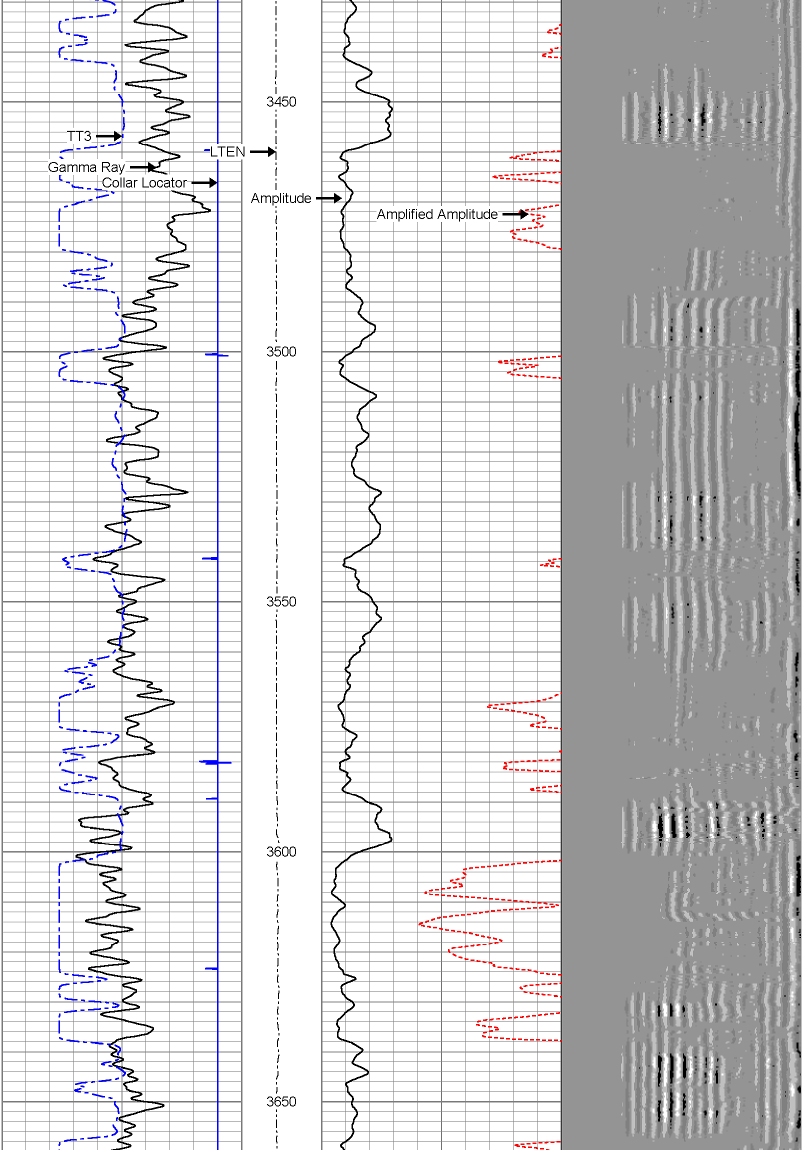


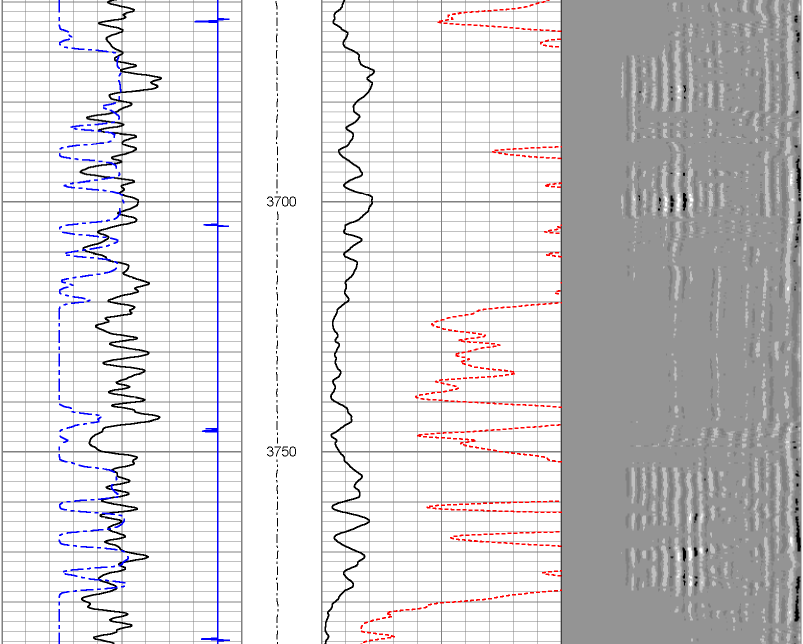


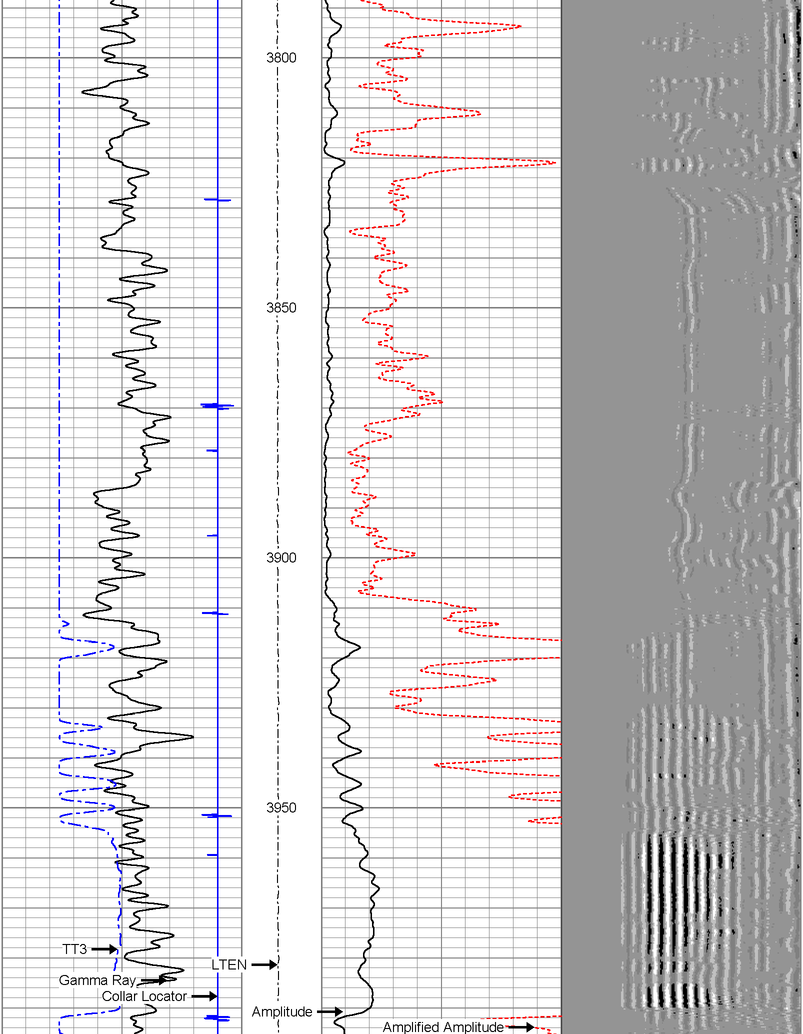


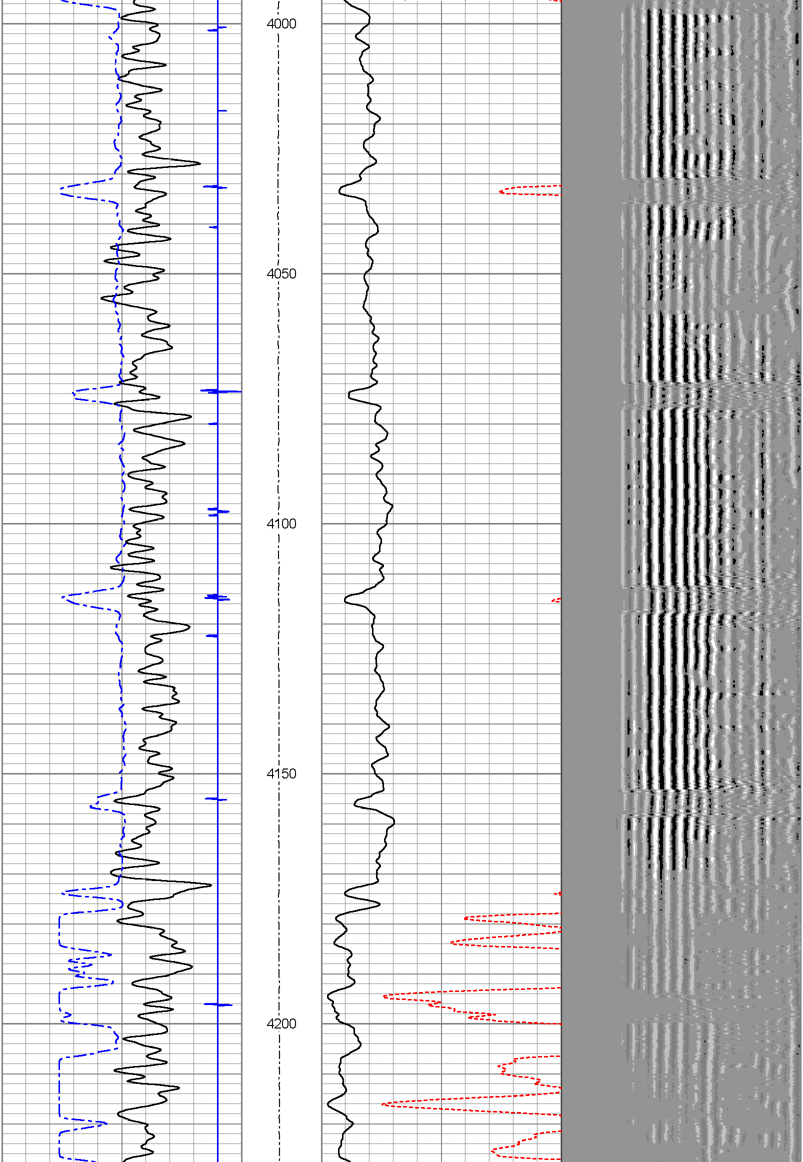


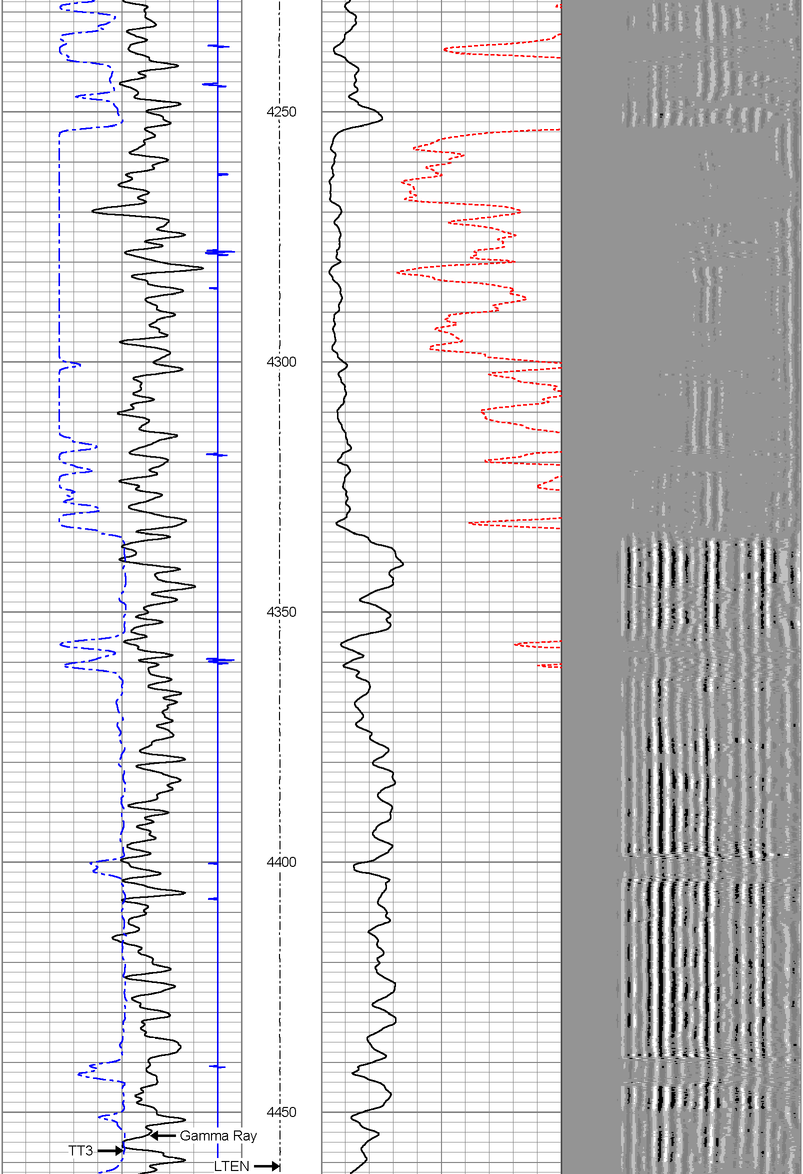


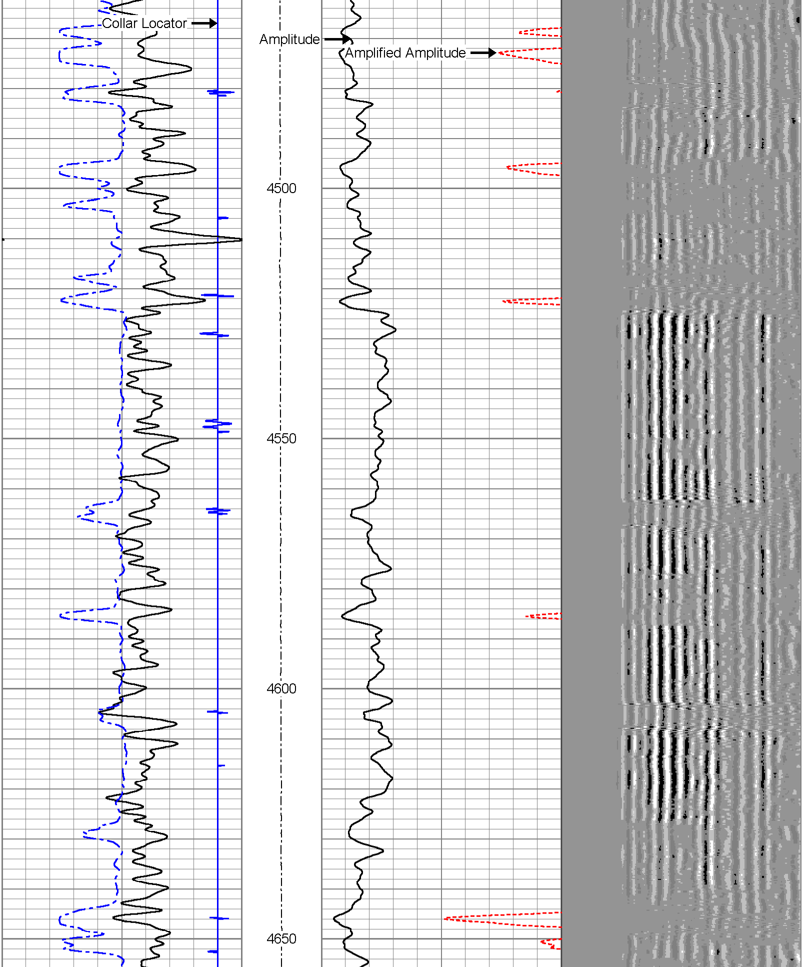


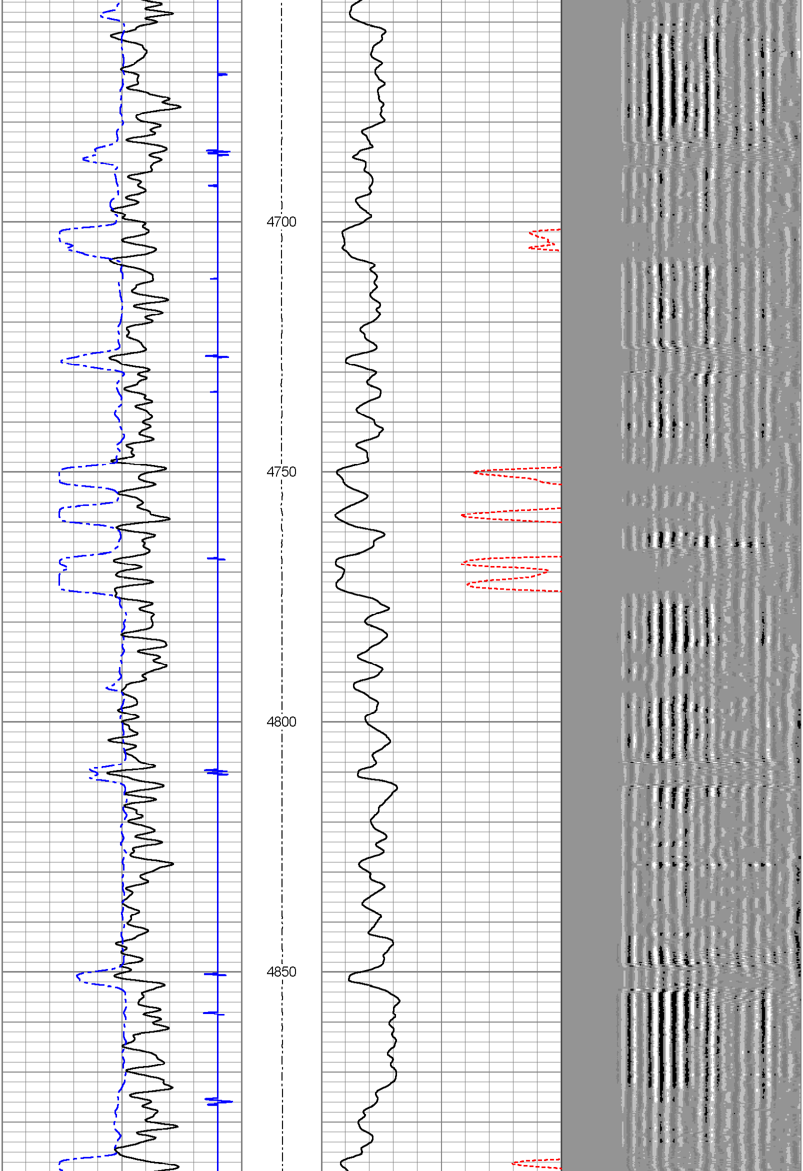


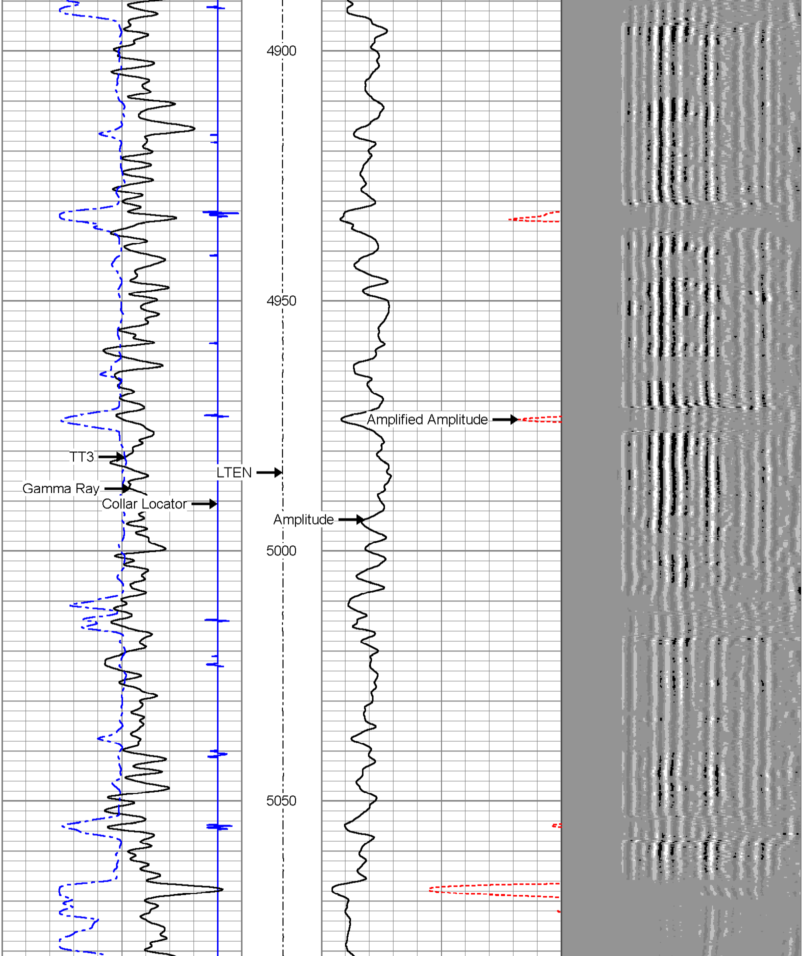


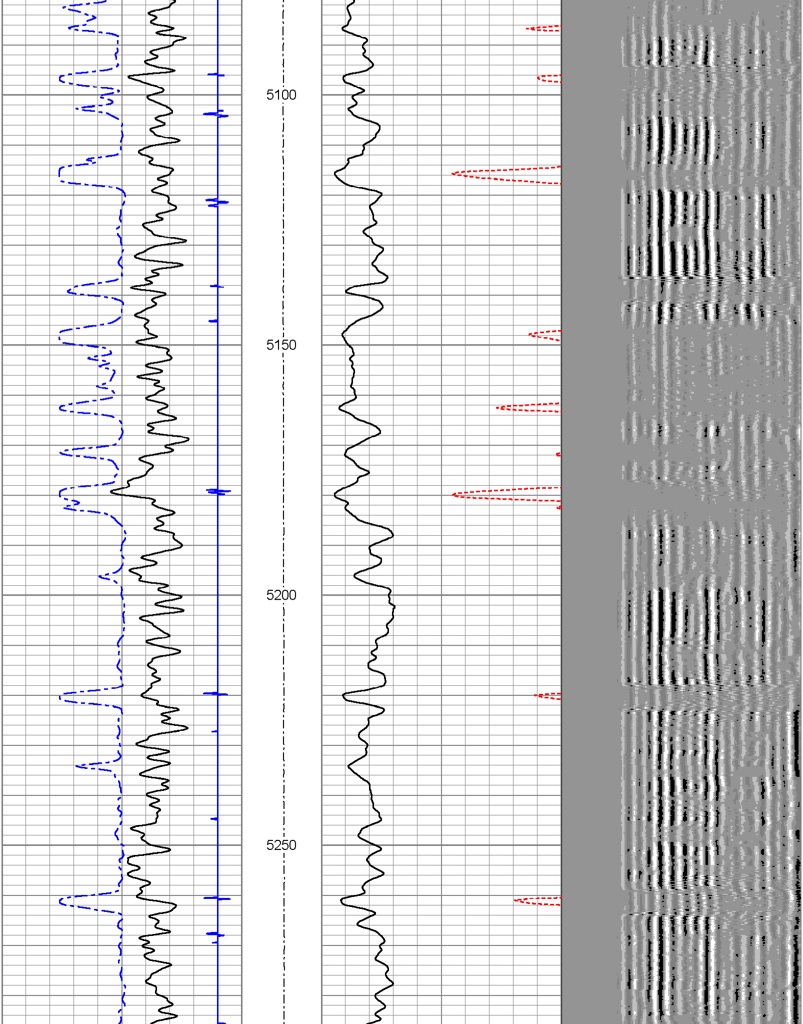


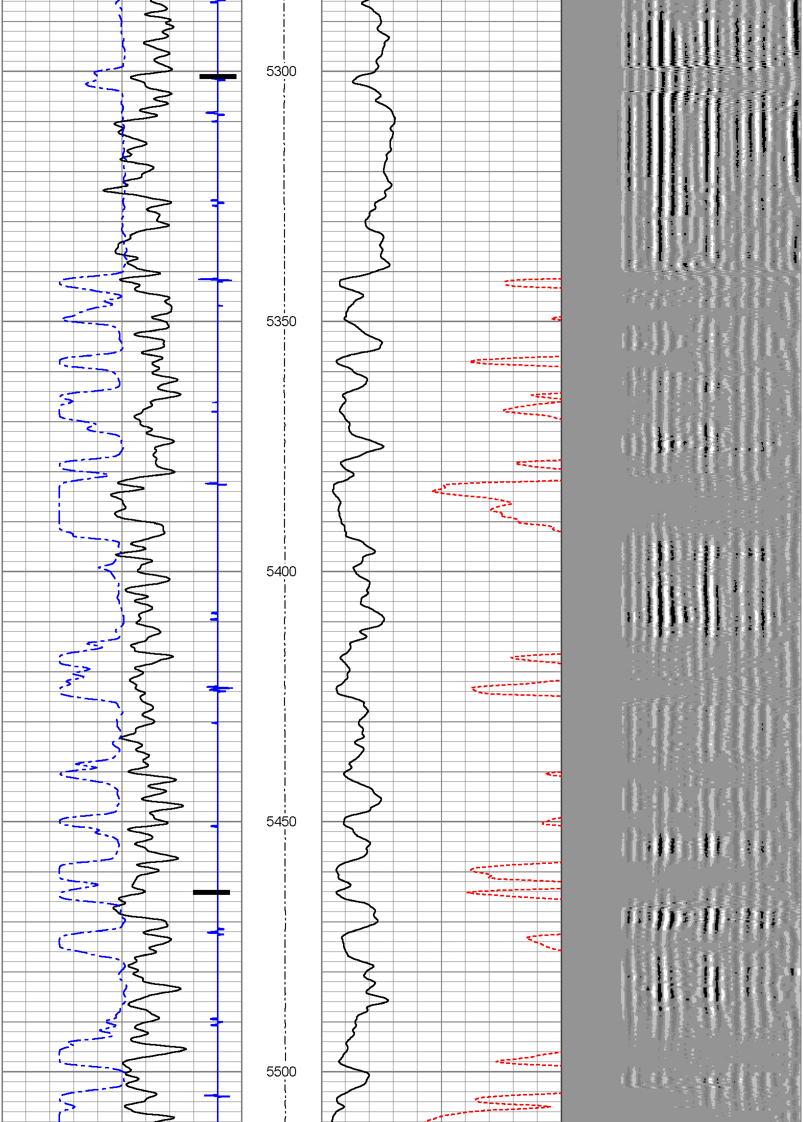


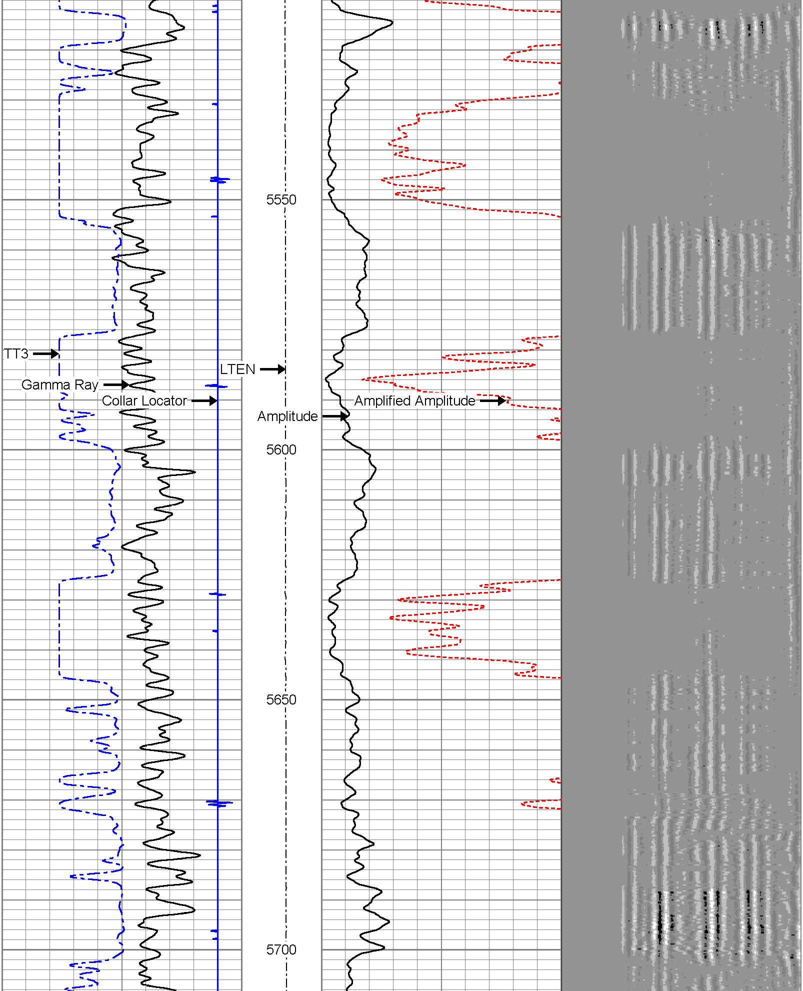


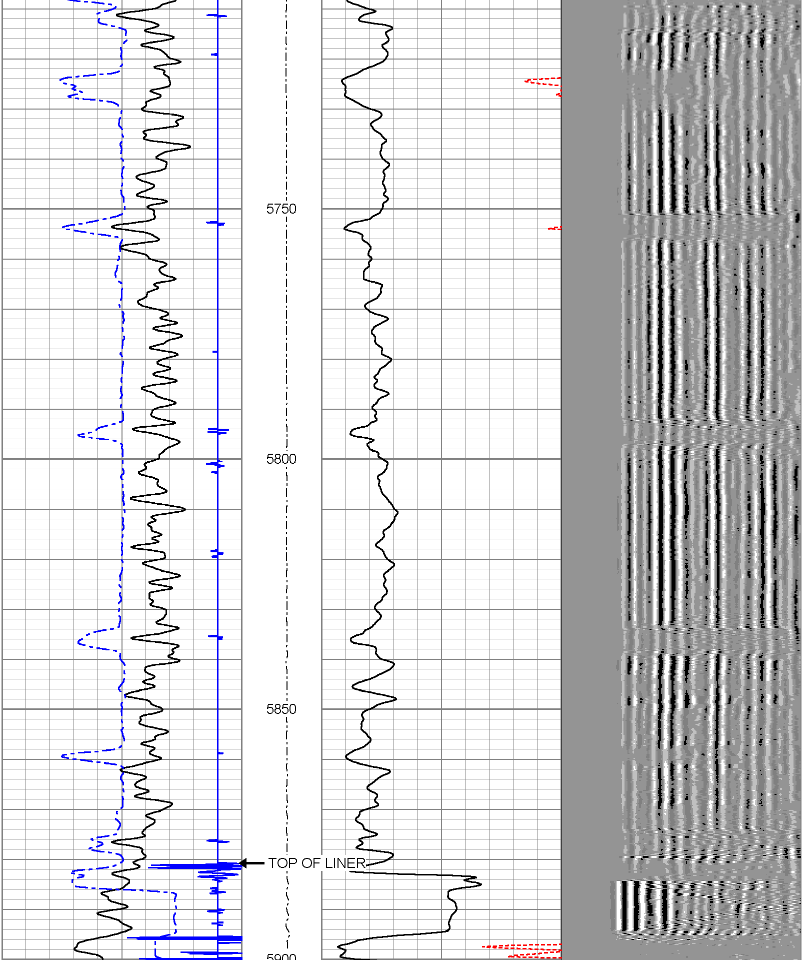


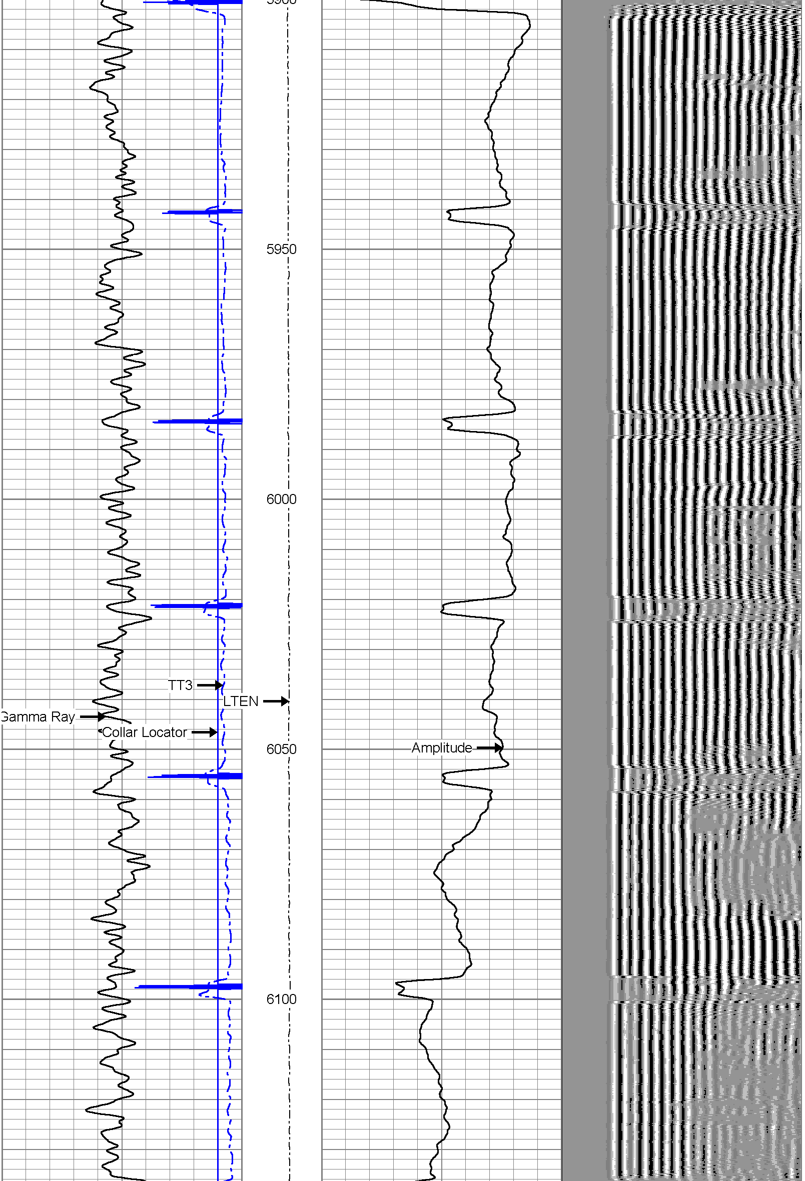


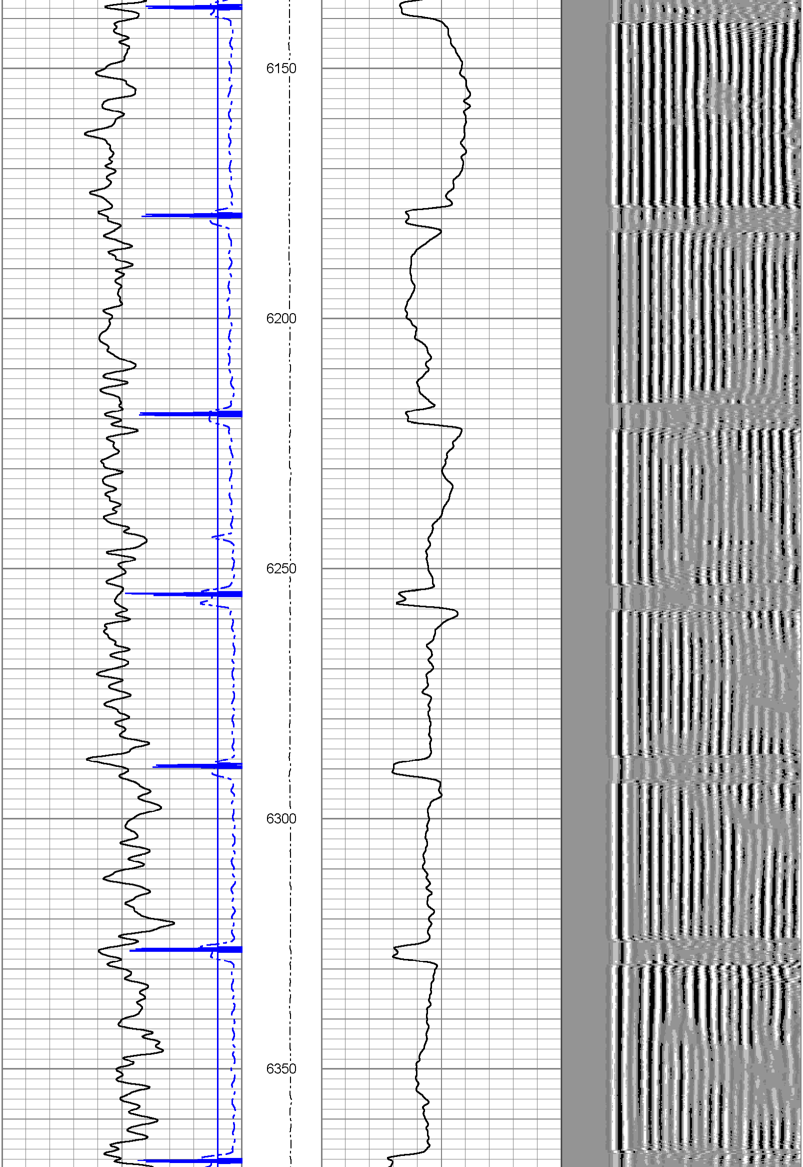


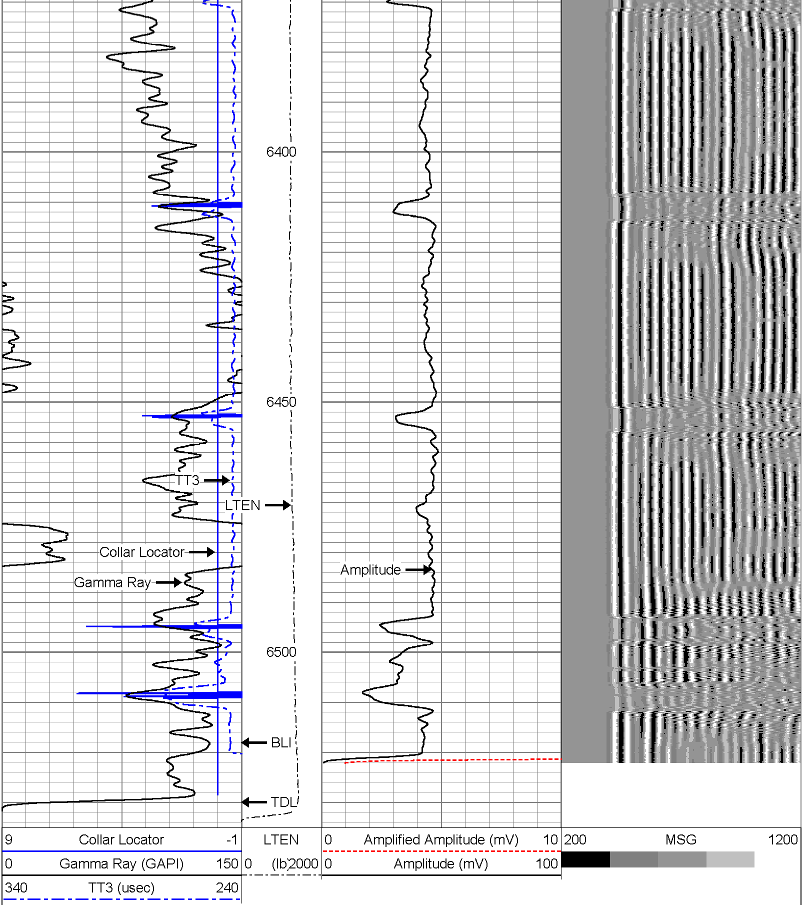












HALLIBURTON

MAIN PASS (1000 PSI)

SCALE: 5"=100'

HALLIBURTON

REPEAT PASS

SCALE: 5"=100'

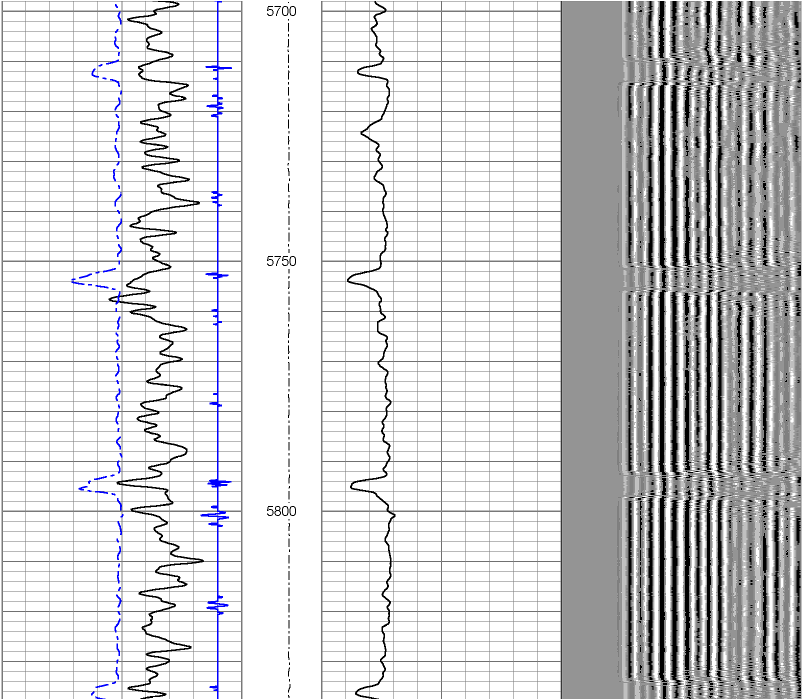
Database File: carrizo_speaker_2-27-31-8-61.db
Dataset Pathname: cbl/pass13
Presentation Format: 1katcbl
Dataset Creation: Thu Aug 08 09:32:41 2013 by Log Halliburton Casedho
Charted by: Depth in Feet scaled 1:240

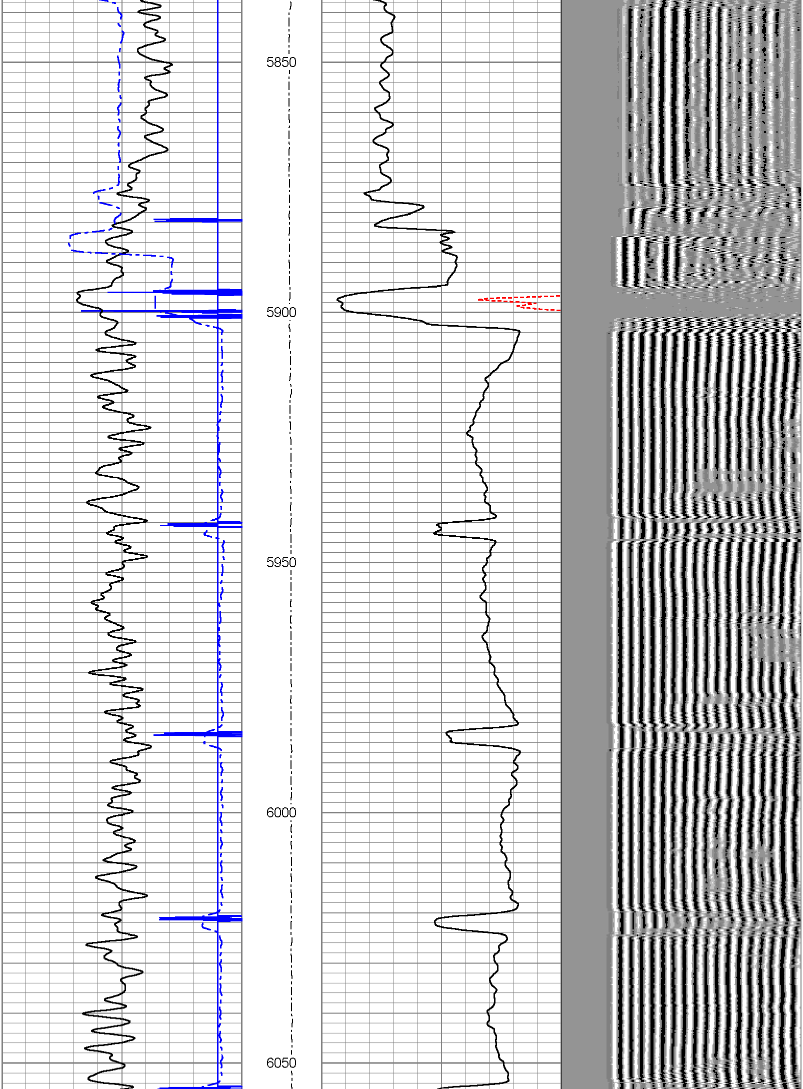
9 Collar Locator -1
0 Gamma Ray (GAPI) 150
340 TT3 (usec) 240

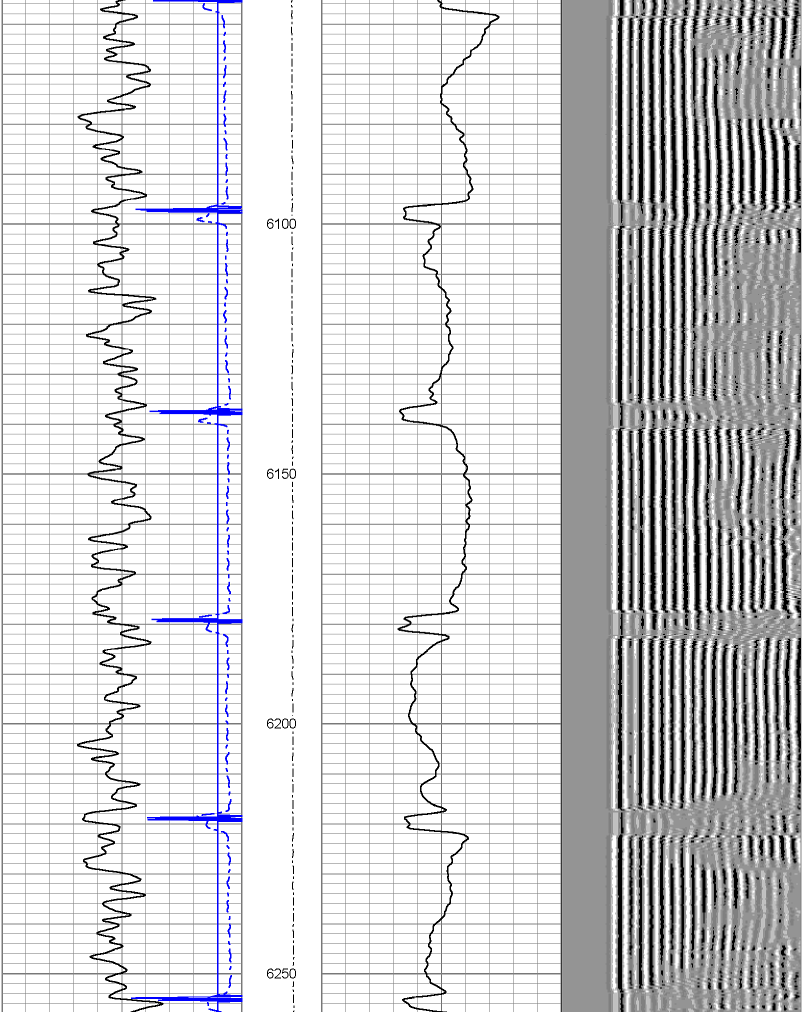
LTEN
0 (lb 2000

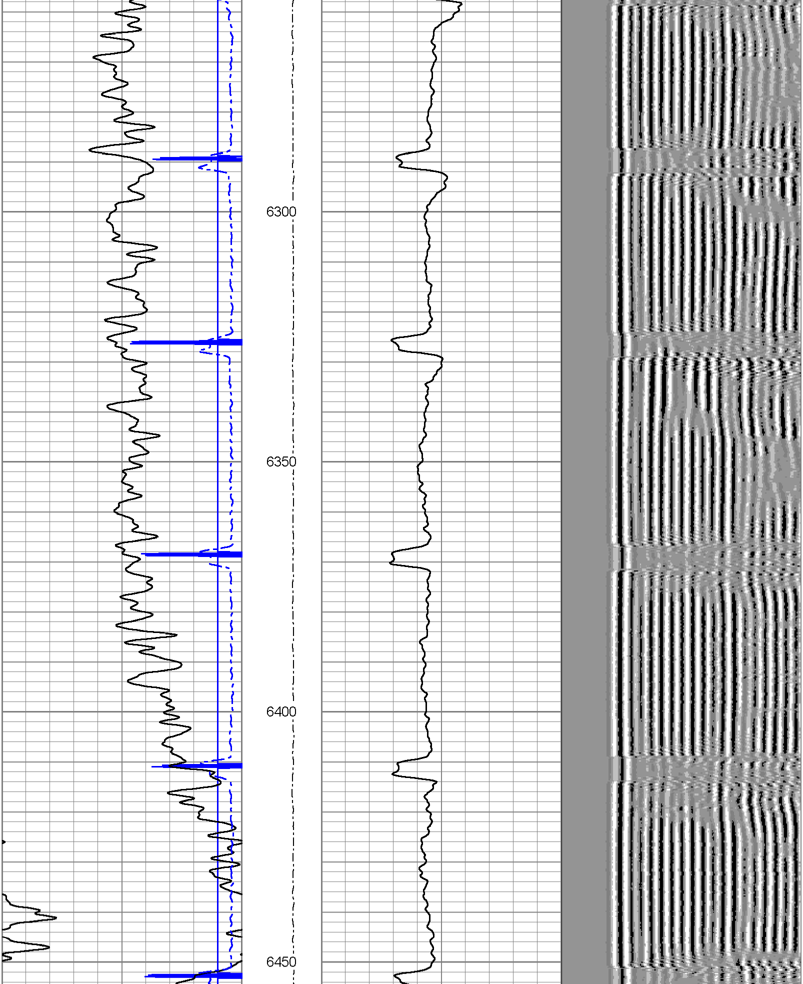
0 Amplified Amplitude (mV) 10
0 Amplitude (mV) 100

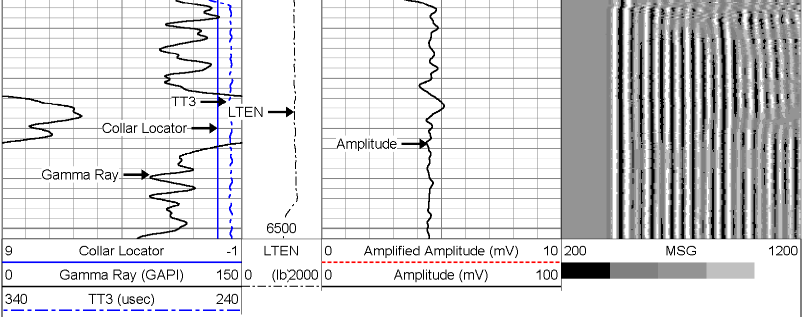
200 MSG 1200











HALLIBURTON

REPEAT PASS

SCALE: 5"=100'

Calibration Report

Database File: carrizo_speaker_2-27-31-8-61.db
Dataset Pathname: cbl/pass16
Dataset Creation: Thu Aug 08 11:17:59 2013 by Log Halliburton Casedho

Temperature Calibration Report

Serial Number: Tit1.3_02
Tool Model: Titan
Performed: Fri Jan 04 06:55:24 2002

	Reference		Reading	
Low Reference:	0.00	degF	0.00	cps
High Reference:	1.00	degF	1.00	cps

Gain: 0.10
Offset: 0.00
Delta Spacing 2

Gamma Ray Calibration Report

Type / Serial: Probe / 275

SHOP CALIBRATION Wed Aug 07 16:49:06 2013

	Counts/Sec.	Gain	Offset	Jig	Units
Background	120.2				cps
Calibrator	419.1				cps
		0.8064			GAPI/cps

PRIMARY VERIFICATION Wed Aug 07 16:53:29 2013

Background	98.3				cps
Calibrator	337.4				cps
Difference				239.1	GAPI

BEFORE SURVEY VERIFICATION Thu Aug 08 07:44:54 2013

Background	93.9				cps
Calibrator	342.9				cps
Difference				249.0	GAPI

AFTER SURVEY VERIFICATION Thu Aug 08 11:17:34 2013

Background	93.5		cps
Calibrator	340.4		cps
Difference		246.9	GAPI

Cement Bond Log Calibration Report

Serial Number:	275		
Tool Model:	Probe		
Performed:	Thu Aug 08 08:27:29 2013		
Depth:	1235.04	ft	
Casing Diameter:	7	in	
	3' Spacing	5' Spacing	
Signal Zero:	0.1	0.1	mV
Calibrated Amplitude:	65	65	mV
Reading at Signal Zero:	-0.0019043	-0.000708008	V
Reading in Free Pipe:	0.158765	0.130054	V
Gain:	403.936	496.323	
Offset:	0.869214	0.4514	

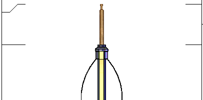
Log Variables

Database:D:\Warrior_data\carrizo_speaker_2-27-31-8-61.db
Dataset: field/well/cbl/pass16

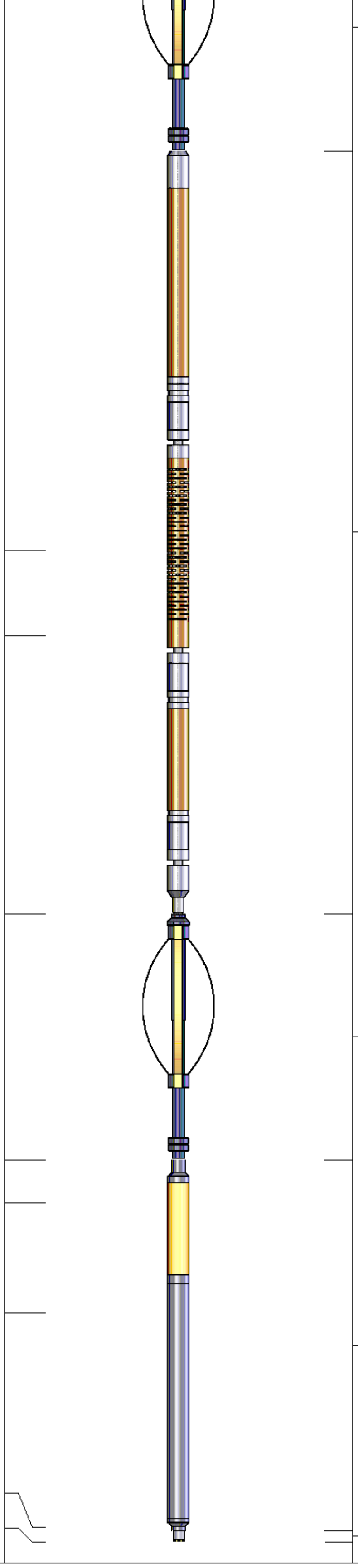
Top - Bottom

PPT usec	MAXAMPL mV	MINAMPL mV	MINATTN db/ft	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF
287	65	1	0.8	7	0	10665	200

BITSIZE in
7.875

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
STNDCH	19.97		1_CABLEHEAD 1"OD CABLE HEAD	0.83	1.00	3.00
CENT	19.14					

WVF3	11.59
WVF5	10.59
CENT	7.34
GR	4.46
CCL	3.96
GR	2.67
TEMP	0.17
LLMTEN	0.00



CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
CBL-Probe (275) Probe 2.75" Dual Receiver Bond	8.92	2.75	60.00
CENT-Probe (PT_MONO2) Probe 2 3/4 Centralizer	2.88	2.75	35.00
GR-Probe (275) Probe 2.75" 4 Channel Pulse	4.33	2.75	30.00
TEMP-Titan (Tit1.3_02) Titan Temp 1.3875	0.13	1.39	10.00

Dataset:	carrizo_speaker_2-27-31-8-61.db: field/well/cbl/pass16
Total Length:	19.97 ft
Total Weight:	173.00 lb
O.D.	2.75 in

Company	CARRIZO OIL & GAS		
Well	SPEAKER 2-27-31-8-61		
Field	WILDCAT		
County	WELD	State	CO

HALLIBURTON

CEMENT BOND
LOG